



Patent Claims

1. A vessel for treating wort in beer brewing,
characterized by
a wort guiding screen (3, 22, 30, 34) arranged in the interior and by a feed pipe (5) ending above the wort guiding screen (3) for discharging wort from above onto the wort guiding screen.
2. The vessel according to claim 1,
characterized in that
the free feed cross-section (S) of the wort on the wort guiding screen is variable.
3. The vessel according to claim 2,
characterized in that
the feed pipe (5) is arranged to be vertically adjustable above the wort guiding screen.
4. The vessel according to any one of claims 1 to 3,
characterized in that
the wort guiding screen (3, 22, 30, 34) is provided with a heating means (7, 8).
5. The vessel according to claim 4,
characterized in that
the wort guiding screen (3, 22, 30, 34) is designed as a double-walled screen through the interior of which a heating medium, such as steam, can be guided.
6. The vessel according to any one of claims 1 to 5,

characterized in that

the wort guiding screen covers at least two thirds of the basic area of the vessel (1).

7. The vessel according to any one of claims 1 to 6,

characterized in that

the wort guiding screen is cone-shaped.

8. The vessel according to claim 7,

characterized in that

the angle of inclination of the wort guiding screen relative to the horizontal is between 20° and 40°.

9. The vessel according to any one of claims 1 to 8,

characterized in that

it is connected as an evaporation vessel between a wort kettle or whirlpool (kettle) and a plate cooler.

10. The vessel according to any one of claims 1 to 8,

characterized in that

it is combined as a pre-run vessel/kettle with a wort kettle.

11. The vessel according to any one of claims 1 to 10,

characterized in that

the wort kettle (40) is preferably combined with a pre-run vessel (66).

12. The vessel according to claim 1,

characterized in that

the wort guiding screen comprises at least two guiding surfaces (22) that are superimposed in cascade-like fashion.

13. The vessel according to claim 1,
characterized in that

the wort guiding screen is designed as a conical surface (30) with a downward orientation of the tip of the cone.

14. The vessel according to claim 1,
characterized in that

the wort guiding screen is designed as a cylindrical surface (34) on the inner circumference of which the wort is guided in the manner of a spiral to run downwards.

15. The vessel according to at least one of the preceding claims,
characterized in that

the surface of the wort guiding screen is, at least in part, corrugated or has a waved structure for an improved transmission of heat.

16. A method for boiling wort in beer brewing,
characterized in that

the wort is discharged onto an inclined, heated guiding surface from which it flows down and spreads into a sheet and is thereby heated.

17. The method according to claim 16,
characterized in that

the wort is guided over the guiding surface by being circulated by a pump.

18. The method according to claim 16 or 17,

characterized in that

wort boiling is carried out in at least two phases, the first phase comprising the heating up of wort by pumping over the heated guiding surface, and the second phase comprising boiling by pumping over the heated guiding surface.

19. The method according to claim 18,

characterized in that

the second phase is followed, optionally after a rest phase, by a third phase in which the wort is stripped by pumping over the guiding surface.

20. The method according to any one of claims 16 to 19,

characterized in that

in the first phase the pumping amount is chosen to be larger than in the second phase.

21. The method according to claim 19,

characterized in that

in the third phase the pumping amount is chosen to be smaller than in the first two phases.

22. The method according to at least one of claims 16 to 21,

characterized in that

the heat amount supplied to the guiding surface is chosen to be higher in the first phase than in the second phase.

23. The method according to claim 22,

characterized in that

the supply of the heat amount is controlled by adjusting different steam pressures in the case of a guiding surface heated with superheated steam.

24. The method according to any one of claims 16 to 23,

characterized in that

the layer thickness of the wort flow over the guiding surface is less than 20 mm, but preferably between 1 and 10 mm.

25. The method according to at least one of claims 16 to 24,

characterized in that

the flow rate of the wort over the guiding surface ranges from 0.2 m/s to 1 m/s.